

# AN AUDIT OF INDICATIONS AND COMPLICATIONS OF OBSTETRICAL HYSTERECTOMY AT A TERTIARY CARE HOSPITAL OF HYDERABAD

Razia Mustafa Abbasi, Firdous Mumtaz, Razia Mughal

## ABSTRACT

**OBJECTIVE:** To study the indications and complications of emergency obstetrical hysterectomy in our set up.

**SETTING:** This study was conducted at Gynae Unit III of Liaquat University Hospital Jamshoro, Pakistan, for the period of 1st April 2001 to 31st March 2002.

**METHODS:** This prospective study was conducted on 20 patients, in whom emergency obstetrical hysterectomy was performed. All the clinical details, operative findings, indications for hysterectomy and post-operative complications were analysed. All the patients received liberal blood transfusion, pre and post operatively broad spectrum antibiotics. Most of the cases were performed by duty resident medical officer but every surgical intervention was carried out under the supervision of senior consultant.

**RESULTS:** Out of total 2305 obstetric admissions, 1550 patients delivered normally. This included 400 (17.35%) cesarean sections and 20 (1.25%) patients had obstetrical hysterectomy, thus, the incidence of obstetric hysterectomy was found 0.1% deliveries.

Obstetrical hysterectomy was performed mainly because of ruptured uterus. Other indications included septic uterus. Uterine atony and morbid adherence of placenta.

Nearly all patients had total abdominal hysterectomy. Despite all emergency measures 4 (20%) maternal deaths occurred, while 16 (80%) patients survived. Post operative morbidity occurred in 60% case and 20% had no complication.

**CONCLUSION:** Obstetrical emergency hysterectomy remains a necessary procedure for life saving during abdominal and vaginal deliveries. It can be avoided by Good antenatal care, early diagnosis of placental abnormalities, thickness of scar by ultrasound and by better monitoring facilities during labour.

**KEY WORDS:** *Obstetrics. Pregnancy. Hysterectomy. Indication. Complications. Outcome.*

## INTRODUCTION

Obstetrical hysterectomy is a life saving procedure during an emergency both in abdominal and vaginal deliveries. It includes both cesarean and post partum hysterectomy. Peripartum hysterectomy is performed as an emergency or as an elective procedure in patients with previous gynecological problems such as fibroid, ovarian tumor or in pre-diagnosed morbid placental adherence, cervical malignancies in whom cesarean hysterectomy is indicated.

Cesarean hysterectomy was first proposed in 1869 in order to decrease the high mortality from haemorrhage and sepsis that accompanied abdominal delivery<sup>1</sup>.

Emergency cesarean hysterectomy implies that some complications arise during the course of cesarian

section, which make it necessary to remove the uterus immediately during cesarian section or several hours after delivery to save the life. In these cases rapid and appropriate surgery may prevent maternal morbidity and mortality specially in patients with obstetric shock<sup>2</sup>. Though these patients are at high risk of anaesthesia, blood loss, procedure itself and postoperative complications. There is evidence that patients who had failed trial of labour following prior cesarian section are at high risk of developing morbid events than those who have repeat elective caesarian section<sup>3</sup>. This study was aimed at to see the indications and complications of emergency obstetrical hysterectomy in our set up.

## METHODOLOGY

This prospective study was carried out from 1st April

2001 to 31st March 2002 at Gynae Unit III of Liaquat University Hospital Hyderabad, Pakistan. In this study 20 patients were included in whom emergency obstetrical hysterectomy was done. All hysterectomies were performed as a life saving procedure. All the clinical details, operative findings, indications, and post operative complications of hysterectomies were analysed. Prior to performing any hysterectomy, a written consent was achieved from close relative of patient. All patients received liberal blood transfusion and pre and post operative broad spectrum antibiotics. Most of the cases were performed by duty Resident Medical Officer (RMO) after discussion with senior consultants. Then the patients were followed up.

## RESULTS

During one year there were total 2305 admissions. Out of these, 1550 patients delivered normally. While 400 cases underwent cesarean sections.

20 patients underwent emergency hysterectomy, thus incidence was 0.8 per 100 deliveries.

Majority of these patients was between 31-40 years of age. Average age was 35 years (Table-I).

**TABLE -I SHOWING AGE DISTRIBUTION OF PATIENTS**

Age in years	No. of Patients	Percentage
20-25	04	20
26-30	04	20
31-40	10	50
> 40	02	10
Total	20	100

Eleven patients (55%) were grand multipara. The youngest nullipara was of age 20 years (Table-II).

**TABLE -II SHOWING PARITY OF PATIENTS**

Parity	No. of Patients	Percentage
Nullipara	02	10
Multipara	07	35
Grand multipara	11	55
Total	20	100

Ruptured uterus was found to be the most common indication leading to emergency hysterectomy in 50% of patients. (Table-III) Common cause of ruptured uterus was injudicious use of oxytocic agents by untrained persons without supervision than previous cesarean section. Uterine Atony occurred in 20% cases and extension of tears in 10% of patients. Only 5% patients came with placenta increta and inversion of uterus respectively.

In 2% of patients ruptured bladder was found along with ruptured uterus with previous cesarean section scar.

**TABLE -III SHOWING INDICATIONS FOR OBSTETRICAL HYSTRECTOMY**

Indications	No. of Patients	Percentage
Ruptured uterus	10	50
Atony of uterus	04	20
Extension of tears	02	10
Infected septic uterus	02	10
Placenta increta	01	05
Inversion of uterus	01	05
Total	20	100

Complications were seen in 12 cases. Pyrexia was noted in 4 cases, while wound infection was present in only 2 cases mainly because of use of appropriate antibiotics (Table-IV). In 02 cases paralytic ileus occurred but both women settled with correction of electrolytes. Two patients suffered from septicaemia and vesico-vaginal fistulae (VVF) developed in 2 patients because of obstructed labour.

**TABLE-IV SHOWING POST- OPERATIVE COMPLICATIONS**

Complications	No. of Patients	Percentage
Pyrexia	04	33.3
Wound infection	02	16
Paralytic ileus	02	16
Septicaemia	02	16
VVF	02	16
Total	12	100

Maternal mortality was seen in 20% of patients (Table-V). Causes of deaths were septicaemia in 3 patients, while one had severe haemorrhage due to extension of tears. Internal iliac ligation was performed but patient died of irreversible shock.

**TABLE-V SHOWING MATERNAL MORTALITY**

Cause	No. of Patients	Percentage
Septicaemia	03	80
Severe haemorrhage	01	20
Total	04	100

There were 10 (50%) still births. Out of these, 4 babies had neonatal (early) death while 6 (30%) survived and were in good condition.



## DISCUSSION

Reviewing the literature published in the recent years the incidence of obstetrical hysterectomy ranges from 36/100,000 to 302.1/100,000 births<sup>4-5</sup>. This study showed high incidence of obstetrical hysterectomy in patients admitted at Gynae Unit -III of Liaquat University Hospital Hyderabad. This incidence is similar to a study done in Nawabshah, Pakistan, in which total and subtotal hysterectomies were performed in 57 patients in 3 years<sup>6</sup>. But these results are not comparable with any other study done in the world. No case of ruptured uterus was noted by Kessier and Kerchmar<sup>7,8</sup>.

In Faisalabad, the incidence of obstetrical hysterectomy and maternal mortality has been reported as declined because of obstetric emergency care<sup>9</sup>. Maternal mortality in cesarian hysterectomy is generally quoted as 0.7% in developed countries as compared to 0.05% for all cesarian deliveries<sup>10</sup>. In our study most of patients were referred cases from interior of Sindh. Majority was un-booked grand multipara (55%) and above 30 years of age.

Major causes of death and obstetrical hysterectomy are reported as un-planned pregnancy and improper antenatal checkup<sup>11</sup>.

The main reason for hysterectomy in our study was ruptured uterus. Ruptured uterus was due to injudicious use of oxytocic agents in multipara at home by Traditional Birth Attendant (TBA) without any supervision. Uterine atony was because of multiparity, placental abruption, prolonged and obstructed labour. These patients were managed by uterine massage, oxytocic injections, rectal insertion of PGE<sub>2</sub> pessaries, intrauterine packing but all measures failed.

Other indication was extension of tears either due to previous cesarian section or obstructed labour leading to severe haemorrhage.

Incidence of placenta previa was 5%. This is increasing because of increasing number of cesarian sections<sup>12</sup>. Similarly inversion of uterine was noted in one patient (5%). The cause of inversion was mismanagement of 3<sup>rd</sup> stage of labour.

The maternal morbidity included persistent high grade fever due to prolonged labour and manipulation by un-trained TBAs. Complications, according to Steage JF et al<sup>13</sup>, mainly surgical are more common than medical but in our study only 2 patients had VVF because of obstructed labour while remaining had medical complications. These can be avoided by better surgical skills. Thus, it is observed that those women who underwent planned cesarian hysterectomy did not have any pre or postoperative complications as compared to those who had emergency cesarian hysterectomy. Secondly, it provided resident surgeon the opportunity to learn the

operation with supervision under controlled circumstances.

In our study, one patient had internal iliac ligation to control haemorrhage but patient did not survive due to irreversible shock. Perinatal mortality was also high. This was due to delay in reaching hospital because of poverty, delay in referral system and non-availability of blood by donors.

## CONCLUSION

Obstetrical emergency hysterectomy remains a necessary procedure for life saving during abdominal and vaginal deliveries. The procedure itself is usually associated with considerable morbidity & mortality. Obstetrician should identify patients at risk and anticipate the procedure and complications. Obstetrical hysterectomy in modern obstetrics can be avoided by good antenatal care, early diagnosis of placental abnormalities, thickness of scar by ultrasound and by better monitoring facilities during labour.

Complications can be avoided by antibiotic cover, liberal screened blood transfusions, good anaesthesia and technical skills of surgeon, thus avoiding the morbidity, mortality and psychological trauma of precious lives.

## BIBLIOGRAPHY

1. Chao LC et al. Obstetrical hysterectomy and placenta praevia. Acreta: Three bladder injury case reports. *Chang Gung Med J* 1997; 20: 44-51.
2. Kavak ZH, Basgul A. Septic shock resulting in death after operative delivery. *Infect Dis Obstet Gynecol*. 2000;19: 51-4.
3. Macones GA. Department of Obstetrics and Gynecology and the center for clinical epidemiology and Biostatistics. University of Pennsylvania health system, Philadelphia USA. *Br J Obstet Gynaecol* 1999; 106: 642-6.
4. Jehng CH et al. Emergency hysterectomy in obstetrics: a nine year experience. *J Obstet Gynaecol* 1991; 30: 215-20.
5. Korejo R, Jafary SN. Obstetrical hysterectomy: Five year experience *JPMA* 1995; 101: 547-9.
6. Sachdev PS. Maternal & Perinatal Health in Pakistan. The proceedings of workshop held at Peshawar, Pakistan 1993; 61-8.
7. Kessier I, Tomcet M, Rozenman D. Maternal mortality in a Israeli Hospital. A review of 23 years. *Int J Gynaecol* 1979; 17: 154-8.
8. Karchmer S, Armas S, Dominguez J, Chawez A, Pinkser V, Macyregar C. Studies on maternal mortality in Mruco, *Int J Gynaecol and Obstet* 1976; 14: 449-59.

9. Bashir RA. Survey of maternal mortality: A retrospective study the Bulletin 1979; 47-51.
10. Rana S. Obstetrics and perinatal care (1<sup>st</sup> Ed). P 1360 Chapter 44.
11. Jafery SN. Antenatal care saves life. Society of Obstetricians & Gynaecologists of Pakistan.
12. Caughey AB, Shipp TD, Repke JT, Zelop CM, Coben A, Lieberman E. Am J Obstet Gynecol 1999; 181: 872-6.
13. Steege JF, Myero ER. Risk adjustment for complications of hysterectomy. Am J Obstet Gynecol 1999; 181: 567-75.

.....

Correspondence:

Dr. Razia Mustafa Abbasi

Department of Gynaecology & Obstetrics, JUMHS, Jamshoro, Pakistan.

